

WHAT IS CLAIMED IS:

- 1        1.        An antenna, comprising:  
2                an antenna element;  
3                a first resin member, integrally molded with the antenna element, the  
4 first resin member including:  
5                a plurality of protrusions, formed on an outer peripheral face of the  
6 first resin member, and arranged with a fixed interval relative to a  
7 circumferential direction of the first resin member; and  
8                a tip end portion, having a cross sectional shape in which projected  
9 portions are arranged with a fixed interval relative to the circumferential  
10 direction of the first resin member; and  
11                a second resin member, coated on the first resin member so as to  
12 have a thickness substantially identical with a height of each of the protrusions.
- 1        2.        The antenna as set forth in claim 1, wherein the tip end portion of the  
2 first resin member is shaped into a prismoid having conical faces facing  
3 directions at which the protrusions are arranged.
- 1        3.        The antenna as set forth in claim 1, wherein the tip end portion of the  
2 first resin member is shaped into a pyramid having conical faces facing  
3 directions at which the protrusions are arranged.
- 1        4.        A method of manufacturing an antenna, comprising steps of:  
2                providing an antenna element;

3 placing the antenna element in a first mold for molding a first resin  
4 member including:

5 a plurality of protrusions, formed on an outer peripheral face of the  
6 first resin member and arranged with a fixed interval relative to a  
7 circumferential direction of the first resin member; and

8 a tip end portion, having a cross sectional shape in which projected  
9 portions are arranged with a fixed interval relative to the circumferential  
10 direction of the first resin member;

11 injecting insulating resin into the first mold to form the first resin  
12 member;

13 placing the first resin member in a second mold such that the  
14 protrusions are brought into contact with an inner face of the second mold; and

15 injecting insulating resin into the second mold from a gate confronting  
16 the tip end portion of the first resin member, to form a second resin member  
17 coated on the first resin member.

1 5. The manufacturing method as set forth in claim 4, wherein the first  
2 mold is configured such that the tip end portion of the first resin member is  
3 shaped into a prismoid having conical faces facing directions at which the  
4 protrusions are arranged.

1 6. The manufacturing method as set forth in claim 4, wherein the first  
2 mold is configured such that the tip end portion of the first resin member is  
3 shaped into a pyramid having conical faces facing directions at which the  
4 protrusions are arranged.